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TI Surface-hardening silver alloys with wear and corrosion resistance

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PI	JP 60110867	A	19850617	JP 1983-217470	19831118
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AB The Ag alloys with a boronized Mn layer contain Mn 0.5-35, optionally ≥ 1 of Cu 0.5-35, Cr 0.1-1, Fe 0.1-10, Ni 0.1-10, Co 0.1-10, Zn 0.1-5, and Cd 0.1-5 (with Cr + Fe + Ni + Co < 10 and Zn + Cd < 5), ≥ 1 of In, Pd, and Sn as corrosion-resistant elements 0.5-10, and/or ≥ 1 of Al, Ti, Zr, and Si as B-diffusion promoting agents 0.1-3%. Thus, a hot-rolled plate of Ag alloy [99087-30-6] containing Mn 15.2, Ni 3.2, Cr 4.3, and Co 1.1% was boronized in a B₄C-H₃PO₃-Na₂BuO₇ (80:10:10) bath at 800°, cleaned, and exposed to air containing 100 ppm H₂S. The boronized plate had Vickers hardness 1620 (vs. 110 without boronizing), and was not blackened in 300 h.